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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MARGER JOHNSON & MCCOLLOM, P.C.
210 SW MORRISON STREET, SUITE 400
PORTLAND, OR 97204

EXAMINER

MANOSKEY, JOSEPH D

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,234

Applicant(s)

KHURANA ET AL.

Examiner

Joseph D. Manoskey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-18, 21, 22, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 19, 20 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/25/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 2 and 3 objected to because of the following informalities: On line 1 of claim 2, it cites the word "included", the examiner believes that this is a typographical error and should read "includes". On line 1 of claim 3, it cites "with included", the examiner believes that this is a typographical error and should read "which includes". Appropriate correction is required.
2. Claim 16 is objected to because of the following informalities: Claim 16 is dependent from claim 4, the examiner believes that this is a typographical error and should be dependent from claim 13 and will be interpreted as such for the purposes of further examination. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 2 recites the limitation "said control bus" in line 3, the examiner believes that this is a typographical error and should read "said signal bus" and will be interpreted as such for the purposes of further examination. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 also recites on line 2 "a backup card" and on line 5 "said backup unit", the examiner suggests changing the "a backup card" to "a backup unit" on line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "said exception handler" on line 4. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 3 also recites on line 2 "a backup card" and on line 5 "said backup unit", the examiner suggests changing the "a backup card" to "a backup unit" on line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "said exception handler" on line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-9, 12-18, 21, 22, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Daruwalla et al., U.S. Patent 7,058,007, hereinafter referred to as "Daruwalla"

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

9. Referring to claim 1, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as in a system that includes a first unit and a backup unit, said first unit and said backup unit being adapted to communicate via a packet network (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler and a network interface unit, said exception handler being activated when said operating system suffers a fault (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS, this is interpreted as the improvement which includes a notification program that operates when the exception handler is activated, said notification program being adapted to send a control packet to the backup via said network interface unit with utilizing said operating system software, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5 and Col. 16, lines 65-67).

10. Referring to claim 2, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as a network router which includes a plurality of CMTS cards interconnected by a signal bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said signal bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a signal to said backup unit via said ASIC, to activate said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

11. Referring to claim 3, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs.

The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as a network router which includes a plurality of CMTS cards interconnected by a data bus, one of said cards being a backup card, each of said cards including an ASIC which interfaces said card to said data bus, a notification program activated when said exception handler is activated, said notification program being adapted to send a signal to said backup unit via said ASIC, to activate said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

12. Referring to claim 4, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers (See Col. 15, lines 25-28).

13. Referring to claim 5, Daruwalla teaches the use of plural CMTSs including a protection CMTS, this is interpreted as wherein said first unit and said backup unit are Cable Modem Termination Systems (CMTS) (See Fig. 2a and Col. 2, lines 50-57).

14. Referring to claim 6 and 7, Daruwalla discloses the CMTS as part of a shared-access computer network, this is interpreted as wherein said first unit and said backup unit are connected to a local area network (See Col. 2, lines 50-57).

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15. Referring to claim 8, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers connected to a wide area network (See Fig. 1 and Col. 15, lines 25-28).

16. Referring to claim 9, Daruwalla discloses CMTS being implemented in hardware, this is interpreted as the wherein said network interface unit operates independent from said operating system (See Col. 15, lines 8-9).

17. Referring to claim 12, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as a system that includes a first unit and a backup unit, means for communicating between said first unit and said backup unit via a packet network means (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted operating system means in said first unit, exception handler means in said first unit, said exception handler being activated when said operating system suffers a software fault, and network interface means in said first unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS, this is interpreted as means operable when said exception handler is activated to send a control packet to said backup unit via said network interface means with utilizing said operating system

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means, and whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5 and Col. 16, lines 65-67).

18. Referring to claim 13, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routing means(See Col. 15, lines 25-28).

19. Referring to claim 14, Daruwalla teaches the use of plural CMTSs including a protection CMTS, this is interpreted as wherein said first unit and said backup unit are internet network routing means (See Fig. 2a and Col. 2, lines 50-57).

20. Referring to claim 15 and 16, Daruwalla discloses the CMTS as part of a shared-access computer network, this is interpreted as wherein said first unit and said backup unit are connected to a local area network means (See Col. 2, lines 50-57).

21. Referring to claim 17, Daruwalla teaches the CMTSs being routing CMTSs, this is interpreted as wherein said first unit and said backup unit are network routers connected to a wide area network (See Fig. 1 and Col. 15, lines 25-28).

22. Referring to claim 18, Daruwalla discloses CMTS being implemented in hardware, this is interpreted as the wherein said network interface unit operates independent from said operating system means (See Col. 15, lines 8-9).

23. Referring to claim 21, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as a method of notifying a backup unit that first unit has suffered a fault (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler an interface unit that can communicate with said backup unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS, this is interpreted as activating said exception handler when said operating system suffers a software fault, sending a notification from said exception handler to said interface unit when said exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating system, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5 and Col. 16, lines 65-67).

24. Referring to claim 22, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as wherein said exception handler activates said interface unit to send a control packet from said first unit to said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

25. Referring to claim 24, Daruwalla teaches a shared-access computer network with redundancy techniques which includes protection cable modem terminal system (CMTS) that can take over for a working CMTS, this interpreted as a computer readable medium containing instructions which when, executed in a system, cause said to perform a method of notifying a backup unit that first unit has suffered a fault (See Fig. 2a and Col. 2, lines 50-57). Daruwalla also teaches the CMTS having a operating system, cutover logic and, is connected to the network, this is interpreted as said first unit including an operating system, an exception handler an interface unit that can communicate with said backup unit (See Fig. 8a and Col. 15, lines 8-28 and Col. 16, lines 65-67).

Daruwalla teaches the cutover logic residing in hardware and after cutover has occurred the protection CMTS taking over for the working CMTS, this is interpreted as activating said exception handler when said operating system suffers a software fault, sending a notification from said exception handler to said interface unit when said

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exception handler is activated, activating said interface unit to send a notification to said backup unit without utilizing said operating system, whereby said backup unit can be notified immediately when said first unit suffers a software fault (See Fig. 8a, and Col. 2, line 50 to Col. 3 line 5 and Col. 16, lines 65-67).

26. Referring to claim 25, Daruwalla discloses a shared-access computer network with a plurality of CMTSs and a protection CMTS, where the CMTSs are routing CMTSs. The CMTS include cutover logic which resides in hardware that allows the protection CMTS to take over for the working CMTS, this is interpreted as wherein said exception handler activates said interface unit to send a control packet from said first unit to said backup unit (See Fig. 2a and 8a, Col. 2, lines 50-57, Col. 15, lines 8-28, and Col. 16, lines 65-67).

Allowable Subject Matter

27. Claims 10, 11, 19, 20, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are closely related backup systems.

U.S. Patent 6,795,933 to Wachel

U.S. Patent App. Pub. 2004/0034871 to Lu et al.

U.S. Patent App. Pub. 2002/0066110 to Cloonan et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Manoskey whose telephone number is (571) 272-3648. The examiner can normally be reached on Mon.-Fri. (7:30am to 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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September 14, 2006

Robert M. Bensch

Robert M. Bensch
Attorney for Applicant